Attorney Docket No.: B0410/7284 U.S. App. No. 10/048,205

Filed: May 2, 2002

Amendment and Reply

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The following <u>Listing of the Claims</u> will replace all prior versions and all prior listings of the claims in the present application:

Listing of the Claims:

- 1. (Currently amended) A tissue implant device configured to resist migration in tissue comprising a flexible helical coil formed from a filament having a rectangular cross-sectional profile, the coil having a plurality of turns, the filament having and an edge along its length along which is formed a plurality of barbs that project from the edge and are adapted to engage surrounding tissue, the filament being configured in a flexible helical coil having a plurality of turns.
- 2. (Previously presented) An implant as defined in claim 1 wherein the barbs are proximally facing.
- 3. (Previously presented) The implant as defined in claim 1 wherein the barbs face radially outward from the coil.
- 4. (Currently amended) A tissue implant device configured to resist migration in tissue comprising a flexible helical coil having a <u>corresponding</u> helical edge and a plurality of barbs projecting from the edge, each barb having a rounded contour adapted to engage surrounding tissue.
- 5. (Previously presented) An implant as defined in claim 1 wherein each barb has a sharp point configured for engaging tissue.
 - 6. (Cancelled)
- 7. (Previously presented) An implant device as defined in claim 1 wherein each turn has a proximally facing edge and a plurality of barbs projecting from the edge of each turn.
- 8. (Currently amended) A tissue implant device configured to resist migration in tissue comprising a flexible helical coil having a corresponding helical edge and a plurality of

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barbs adapted to engage surrounding tissue projecting from the edge of each coil, wherein the coil is formed from a plurality of materials each having a different modulus of elasticity.

- 9. (Previously presented) An implant as defined in claim 8 wherein the spring is formed from metal.
- 10. (Previously presented) An implant as defined in claim 9 wherein the metal is stainless steel.
- (Previously presented) An implant as defined in claim 8 wherein the moduli of 11. elasticity of the coil varies along its length.
- 12. (Previously presented) An implant as defined in claim 1 wherein the filament and barbs are etched from a flat sheet of material and wound into the coil configuration.
 - 13. (Cancelled)
- 14. (Currently amended) A method of forming a tissue implant device comprising: forming a ribbon having an edge along its length and a plurality of barbs projecting from the edge, in a sheet of material by a photochemical etching process; separating the ribbon formed from the sheet of material; and

wrapping the ribbon form into a helical coil shape, plastically deforming the ribbon so that it retains the coil shape with barbs projecting from the edge.

- 15. (Cancelled)
- 16. (Previously presented) A method as defined in claim 14 wherein the barbs are is formed along an edge that will be proximally facing after the ribbon is wrapped into a coil shape.
 - 17. (Cancelled)
- 18. (Previously presented) A method of forming a tissue implant device as defined in claim 14 further comprising forming a plurality of ribbons in a single sheet of material by photochemical etching process.

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19. (Withdrawn): A method of implanting a tissue implant device comprising: providing a flexible helical spring having at least one coil with at least one projecting barb that engages surrounding tissue;

providing a delivery device having a penetrating distal tip and being configured to hold the tissue implant for delivery into tissue;

advancing the delivery device and loaded tissue implant into biological tissue so that the tissue is penetrated and the implant is inserted into the tissue;

releasing the tissue implant into the tissue; withdrawing the implant delivery device.

- 20. (Withdrawn) A method of delivering a tissue implant device as defined in claim 19 wherein the tissue is accessed surgically.
- 21. (Withdrawn) A method of delivering a tissue implant device as defined in claim 19 wherein the biological tissue is accessed percutaneously.
- 22. (Previously presented) A tissue implant device as defined in claim 9 wherein the coil is formed from a nickel titanium alloy.
- 23. (Previously presented) A tissue implant device as defined in claim 2 wherein the barbs project proximally away from the edge of the coil.
- 24. (Previously presented) A tissue implant device as defined in claim 3 wherein the barbs project radially outward from the edge of the coil at an angle inclined in the proximal direction.
- 25. (Previously presented) A tissue implant device as defined in claim 3 wherein the barbs curve radially outward from the edge of the coil at an angle inclined in the proximal direction.